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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/719,746	11/21/2003	Vladimir I. Slepnev	19781/2062	3146

7590 05/15/2007  
EDWARD ANGELL PALMER & DODGE LLP  
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BOSTON, MA 02205

EXAMINER
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CHUNDURU, SURYAPRABHA

ART UNIT	PAPER NUMBER
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1637

MAIL DATE	DELIVERY MODE
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05/15/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/719,746	<b>Applicant(s)</b> SLEPNEV, VLADIMIR I.	
	<b>Examiner</b> Suryaprabha Chunduru	<b>Art Unit</b> 1637	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 February 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 February 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

1. Applicant's response to the office action filed on February 21, 2007 is considered and acknowledged.

***Status***

2. Claims 1-40 are pending. Claims 1, 4, 27, 29, 32 and 35 are amended. All arguments have been thoroughly reviewed and deemed persuasive for the reasons that follow. This action is made Non-Final.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-40 are rejected under 35 U.S.C. 102(e) as being anticipated by Enzelberger et al. (US 6,960,437).

Enzelberger et al. teach a polymerase chain reaction (PCR) apparatus of claim 1, comprising (i) a solution holder separately hold plurality of samples of reaction mixture (see at least col. 2, line 40-44, col. 16, line 39-45, col. 51, line 14-18) (ii) a heat exchanging structure to cyclically control specified duration and temperature of plurality of samples (see at least col. 2, line 40-64, col. 26, line 30-67 col. 27, line 1-67, col. 28, line 1-67, col. 29, line 1-67, col. 30, line 1-67, col.

51, line 14-18) dispensing mechanism to dispense, aliquots from each sample of the plurality of samples at respective different cycles of an amplification regimen (see at least col. 2, line 44-56, col. 16, line 30-67, col. 17, line 1-7, col. 18, line 1-28, col. 51, line 19-26 indicating control channel as dispensing mechanism for withdrawal of portions of samples at different temperature cycles ).

With regard to claim 2, Enzelberger et al. teach that the set of plural samples comprises all of the plural samples (see col. 3, line 31-51, col. 4, line 49-55).

With regard to claims 3-5, 13, Enzelberger et al. teach that the sample holder comprises heat-conducting metal block includes aluminum (see at least col. 26, line 1-28, col. 45, line 58-61).

With regard to claims 6-8, Enzelberger et al. teach that the solution holder comprises silica coated material and multiple capillary tubes (see col. 9, line 54-59).

With regard to claims 9, 11, Enzelberger et al. teach that the capillary tubes comprise one end closed by sealing the ends or with valves (see at least col. 9, line 38-53, col. 22, line 8-28, col. 38, line 14-33).

With regard to the claim 10, Enzelberger et al. teach that the flow channel are comprise oil to flow through chamber (see col. 30, line 22-28).

With regard to claim 12, Enzelberger et al. teach that plural samples comprise multiple of 96 samples (see at least col. 17, line 8-20).

With regard to claim 14-15, Enzelberger et al. teach that the heat exchanger comprises at least one hot air oven and one water bath (see col. 28, line 59-66, col. 26, line 36-67, col. 27, line 1-4).

With regard to claim 16-20, Enzelberger et al. teach that the temperatures comprise two or three incubation temperatures ranging from 45-99<sup>0</sup> C includes denaturation, annealing and extension temperatures (see col. 26, line 30-35, col. 15, line 62-67, col. 16, line 1-6).

With regard to claims 21-24, Enzelberger et al. teach that the apparatus comprises loading apparatus to load samples and aliquot holders comprise 96 or 384 well microtiter trays (chip holders (see col. 38, line 34-67, col. 39, line 1-7col. 24, line 30-41).

With regard to claims 25-26, Cahil et al. teach that the aliquot holders comprise one of sample holders and sample inputs of another instrument (see page 20, line 1-32, page 21, line 1-7).

With regard to claim 27-28, 30-37, Enzelberger et al. teach a polymerase chain reaction (PCR) apparatus comprising

(i) a solution holder separately hold plurality of samples of reaction mixture(see at least col. 2, line 40-44, col. 16, line 39-45, col. 51, line 14-18); (ii) a heat exchanging structure to cyclically control specified duration and temperature of plurality of samples (see at least col. 2, line 40-64, col. 26, line 30-67col. 27, line 1-67, col. 28, line 1-67, col. 29, line 1-67, col. 30, line 1-67, col. 51, line 14-18); and (iii) an automatic dispensing mechanism to automatically dispense samples (see at least col. 2, line 44-56, col. 16, line 30-67, col. 17, line 1-7, col. 18, line 1-28, col. 51, line 19-26 indicating control channel as dispensing mechanism for withdrawal of portions of samples at different temperature cycles).

With regard to claim 29, Enzelberger et al. teach that the apparatus comprises a reaction system to cause amplification (see col. 2, line 6-14, col. 35, line 24-32).

With regard to claim 32, 35, 38-40, Enzelberger et al. teach that the apparatus comprises a

separation device (capillary electrophoresis) quantitative analysis system (see col. 33, line 19-67, col. 34, line 1-67). Accordingly the disclosure of Enzelberger et al. anticipates the instant claims.

***Response to arguments:***

4. With regard to the objection to the drawings, Applicants' arguments and submission of formal drawings are fully considered and the objection is withdrawn herein.

5. With regard to the rejection of claim 4 under 35 USC 112 second paragraph, Applicants' arguments and amendment are fully considered and the rejection is withdrawn herein in view of the amendment.

6. With regard to the rejection of claims 1-13, 15-38 under 35 USC 102(b) as being anticipated by Haff et al. , Applicants' amendment and arguments are fully considered and found persuasive. The rejection is withdrawn herein in view of the amendment and persuasive arguments.

7. With regard to the rejection of claims 1-4, 6-9, 11-14, 16, 19, 21-40 under 35 USC 102(b) as being anticipated by Cahil et al. , Applicants' amendment and arguments are fully considered and found persuasive. The rejection is withdrawn herein in view of the amendment and persuasive arguments.

8. With regard to the rejection of claims 1-4, 13, 21-24 under 35 USC 102(a) as being anticipated by Tal et al. , Applicants' amendment and arguments are fully considered and found persuasive. The rejection is withdrawn herein in view of the amendment and persuasive arguments.

***Conclusion***

No claims are allowable.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Suryaprabha Chunduru whose telephone number is 571-272-0783. The examiner can normally be reached on 8.30A.M. - 4.30P.M , Mon - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Benzion can be reached on 571-272-0782. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Suryaprabha Chunduru  
Primary Examiner  
Art Unit 1637

*Prabha Chunduru*  
SURYAPRABHA CHUNDURU 5/14/07  
PRIMARY EXAMINER